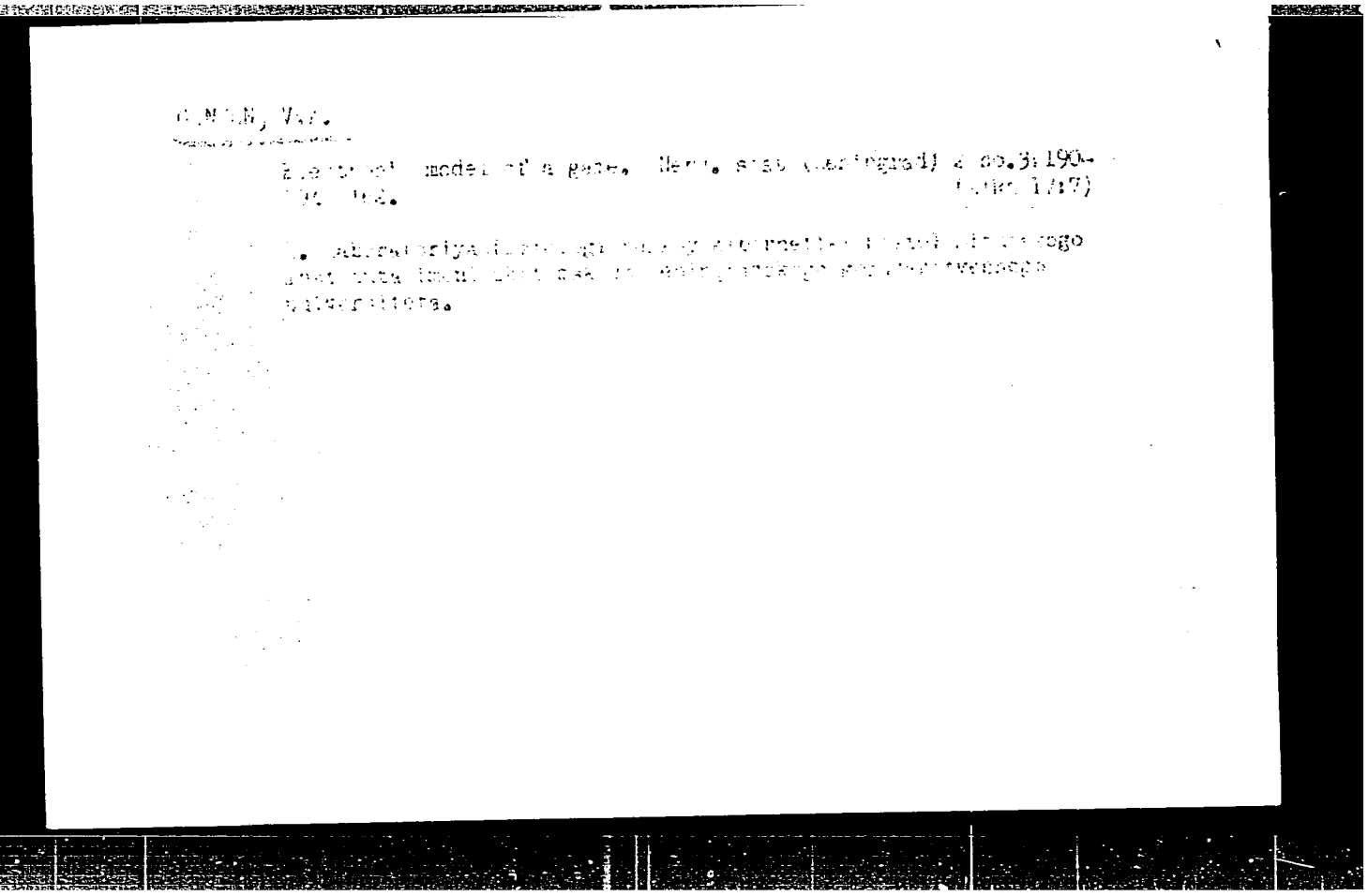
CAN'YUK, V.A.

CAN'YUK, V.A. "A Study of the Stability of Samples of Barley to pests and Diseases, in order to find the Appropriate Original Material for their Selection." All-Union Order of Lenin Academy of Agricultural Sciences imeni V.I. Lenin. All-Union Inst of Plant Growing. Leningrad, 1956. (Dissertation for the Degree of Candidate in Biological Science)

So: Knizhnaya Letopis', No. 18, 1956,



GANZHI, V M

ACCESSION NR: AP4002550 S/0247/63/013/006/1108/1110

AUTHOR: Smetankin, G. N.

TITLE: Third Volga Area Conference of physiologists, biochemists, and pharmacologists

SOURCE: Zhurnal vy*sshey nervnoy deyatel'nosti, v. 13, no. 6, 1963, 1108-1110

TOPIC TAGS: bionics, closed cybernetic system, neuron modeling, pharmacological stimulant, regeneration process, dibazol, thyroidine, pentoxyl, neuron, cybernetics, central nervous system, biological modeling

ABSTRACT: The Third Volga-Area Conference of physiologists, biochemists, and pharmacologists was held in Gorky in June 1963. One hundred and thirty papers were presented. Experimental results and clinical data were reported on various problems in the physiology, biochemistry, and pharmacology of the central nervous system. Problems concerning the cardiovascular system, respiration, endocrine system, and the digestive system were also discussed. A. N. Malakhov and M. Yu.Ul'yanov

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ACCESSION NR: AP4002550

reported on studies being conducted in the field of bionics and gave an analysis of the methods used in the investigations. V. A. Ganzen and R. M. Granovskaya reported on a radioelectronic device which makes possible the mathematical simulation of neuron properties, using the neuron as a functional unit, and of functions characteristic of interacting neurons. N. P. Sinitsyn reported on the stimulating action of vitamins B_1 and B_{12}, and of dibazol, thyroidine, pentoxyl, and ATF on the regenerative processes in the myocardium.

ASSOCIATION: none

SUBMITTED: 00 DATE ACQ: 07Jan64 ENCL: 00

SUB CODE: AM NO REF SOV: 000 OTHER: 000

Cord 2/2

GANZEN, V.A.; GRANOVSKAYA, R.M.

Some frequency transformations studied on the models of neurons. Vest. LGU 18 no.21:155-160 '63 (MIRA 16:12)

GRANOVSKAYA, R.M.; GANTEN, V.A.

Conduction of a nervous impulse in the stem and phalangeal preparation of a sciatic nerve of a frog during excitation by square pulses. Trudy Len. ob-va est. 74 no. 1:81-84 '63. (MIRA 17:9)

L 41373-65 EWT(d)/EED-2/EWP(1) Pq-4/Pg-4/Pk-4 IJP(c) BB/GG
ACCESSION NR: AT5001654 S/3040/64/000/003/0058/0062

25
24
B+1

AUTHOR: Granovskaya, R. M.; Ganzen, V. A.; Krivova, G. Ya.

TITLE: Digital-computer simulation of the memorization process in a very simple nerve network

16

SOURCE: Leningrad. Universitet. Kafedra vychislitel'noy matematiki i Vychislitel'nyy tsentr. Vychislitel'naya tekhnika i voprosy programmirovaniya, no. 3, 1964, 58-62

TOPIC TAGS: nervous system, neuron system, neuron modeling

ABSTRACT: A memory is defined in this article as the property of the nervous system of recording, storing, and reading information. The network consists of plastic neurons, i.e., neurons whose synapses have the property of changing their efficiency during operation. The network considered is in the form of a matrix of 24 (4 x 6) neurons each of which has 33 inputs (one receptor and 32 internal) and 1 output. The signals at the inputs and outputs can assume at any instant of time only one of two values, zero or 1. An expression is written for the state of the neuron output at the instant t + 1 when a set e of signals is applied to

Card 1/2

L 43573-65
ACCESSION NR: AT5001654

the system at the instant t (the synapse delay time is used as the unit of time). Experiments were made with this matrix on the "Ural-1" electronic computer, to ascertain the dependence of the quality of memorization of signals from a set R, applied to the receptor inputs, and signals from the set c applied to internal inputs, as functions of the number of recorded images (from the set R), the number of neuron inputs, the neuron threshold, and the initial scatter of the weights S assigned to each of the internal inputs of the neuron. The quality of memorization fluctuated with increasing number of recorded images, in some analogy with human memory. No connection was established between the quality of memorization and the number of neuron inputs. The existence of an optimum threshold was deduced. The matrix had a tendency to memorize parts common to several images, thus making it capable of fixing the statistical structure of the image. Some of the experiments indicated that the information capacity of the matrix was not fully utilized. Orig. art. has: 3 figures and 3 formulas.

ASSOCIATION: Leningradskiy universitet (Leningrad University)

SUBMITTED: 10Jun63 ENCL: 00 SUB CODE: LS, DP

NR REF SOV: 000 OTHER: 003

Card 2/2 mc

L 22877-65
EED-2/EWT(d)/T/EWP(1) Pg-4/Pk-4/Po-4/Pq-4 IJP(c) GG/BB
ACCESSION NR: AT5002656 S/3040/64/000/003/0069/0079

AUTHOR: Granovskaya, R. M.; Ganzen, V. A.

TITLE: Algorithm for the recognition of contour images

SOURCE: Leningrad. Universitet. Kafedra vychislitel'noy matematiki i Vychislitel'nyy tsentr. Vychislitel'naya tekhnika i voprosy programmirovaniya, no. 3, 1964, 69-79

TOPIC TAGS: character recognition, reading machine, outline recognition, servomechanism

ABSTRACT: The authors describe an algorithm for the recognition of plane figures by their external contour. The system is based on some information concerning the structure and functions of biological systems. It is pointed out that the human or biological shape recognition process is similar in some respect to scanning of the contour and results in formation of a system of sequential sensing signals. Human recognition consists of starting out with minimum accuracy, which is increased by using additional attributes until the problem is solved with sufficient accuracy. The algorithm described here employs a varying number of

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L 22877-65
ACCESSION NR: AT5001656

attributes, depending on the required recognition accuracy. The method consists in the following: A servomechanism searches for the object in its field of view and tracks the contour of the object (defined as an arbitrary connective region on a plane, bounded by a smooth closed line). The tracing of the contour begins at an arbitrary point and is in a counterclockwise direction, concluding upon returning to the initial point. The response of the servomechanism is proportional to the curvature of the contour at each point. The system is sensitive to changes in the curvature of the contour. Auxiliary attributes may be topological features, the position of the initial point, the orientation of the contour in an external coordinate syste, and the properties of the digital code used for data transmission. The number and composition of the attributes employed, as well as the quantization levels, can be different. Examples are presented of recognition of Russian and Latin letters and simple geometrical figures. Tables of codes based on several attributes (up to 3) are presented. Orig. art. has: 3 figures and 6 tables.

ASSOCIATION: Leningradskiy universitet (Leningrad University)

SUBMITTED: 10Jun63 ENCL: 00 SUB CODE: DP

NR REF SOV: 010 OTHER: 001

Card 2/2

L 22876-65 EEC-4/EED-2/EEC(k)-2/EWG(c)/EEC(g)/EWT(d)/EWP(1) Pg-4/Pk-4/Po-4/Pg-4
ACCESSION NR: AT5001657 IJP(c) GG/BB S/3040/64/000/003/0084/0090

AUTHOR: Ganzen, V. A.; Granovskaya, R. M.

TITLE: Apparatus for the calculation and simulation of neurons

SOURCE: Leningrad. Universitet. Kafedra vychislitel'noy matematiki i Vychislitel'nyy tsentr. Vychislitel'naya tekhnika i voprosy programmirovaniya, no. 3, 1964, 84-90

TOPIC TAGS: neuron modeling, central nervous system, neuron threshold, neuron function

ABSTRACT: Unlike most other mathematical models of neurons, in which the neuron is regarded as a logical converter, the apparatus described here makes it possible to simulate neuron operation by taking additional account of the operation of a neuron as a converter of a space-time pulsed code. The apparatus is intended for the investigation of the conversion of such a space-time pulse code in neuron models of different types and under different operating conditions. The principles underlying the construction of the machine were obtained from a representation of the physiological data and structure and function of the neuron, obtained

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L 22876-65
ACCESSION NR: AT5001657

by the authors elsewhere (Vestnik LGU, No. 4, 1963). The neuron is regarded as a multiple-pole network with several inputs and one output. The input signals are binary, and the neuron has a threshold which can vary in time. A block diagram of the apparatus is shown in Fig. 1 of the enclosure. The input sequences of stimuli, the law governing the variation of the threshold with time, and the law governing the forgetting of the stimuli are all inserted by means of a punched tape through a reading unit or by means of a keyboard. The different units of the apparatus are described. An approximate calculation shows that the apparatus can be investigated for about 10^7 different typical conditions. It is claimed that the apparatus will help decide which functions of the central nervous system are determined by the structure and operation of individual neurons, and which are determined by the neuron network as a whole. No special programming is required, and the results are presented in a form similar to an ordinary oscillogram. Orig. art. has: 3 figures and 2 formulas.

ASSOCIATION: Leningradskiy universitet (Leningrad University)

SUBMITTED: 23Feb63 ENCL: 01 SUB CODE: LS, DP

NR REF SOV: 002 OTHER: 008

Card 2/3

L 22876-65
ACCESSION NR: AT5001657

ENCLOSURE: 01

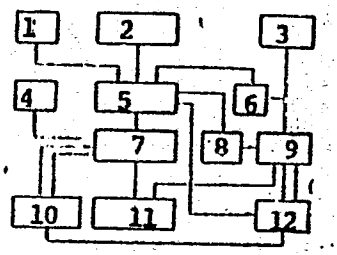


Fig. 1. Block diagram of set-up.

1 - Keyboard, 2 - reading unit, 3 - printer block, 4 - readout system, 5 - input reginster, 6 - delay line, 7 - memory unit, 8 - threshold variation unit, 9 - threshold detector, 10 - weight variation unit, 11 - adder, 12 - control unit.

Card 3/3

L 08560-67 EWT(d)/EWP(1) IJP(c) BB/GG/JXT(BF)
ACC NR: AT6022619 (A) SOURCE CODE: UR/3040/65/000/004/0084/0099

AUTHOR: Ganzen, V. A.; Granovskaya, R. M.

ORG: none

TITLE: Several problems in the processing and storage of information on line drawings

SOURCE: Leningrad. Universitet. Kafedra vychislitel'noy matematiki i Vychislitel'nyy tsentr. Vychislitel'naya tekhnika i voprosy programmirovaniya, no. 4, 1965, 84-99

TOPIC TAGS: recognition process, information processing, information storage, nervous system

ABSTRACT: A method for processing information derived from the identification of objects by their external contours is described. The ability of a memory system to classify objects is studied on the basis of principles derived from the study of the human nervous system: 1) the reaction to a change in any parameter of an input signal which may, in special cases, be taken to be proportional to the time derivative of the signal; 2) the system is capable of integrating parameter changes in time and its reaction is proportional to the summation so derived; 3) there is a threshold value such that the reaction at the system's output differs according to whether the signal is above or below the threshold value. The stages of contour recognition are described through the expression of the contour in the form of a code based on quantities assign-

Card 1/2

L 08830-67

ACC NR: AT6022619

ed to forms of sections of the contour. Contour features, hence their codes, are distinguished according to properties of invariance with respect to certain transformations as primary or secondary. Resulting code trees for matching (indexing) input contour codes with memory codes (recognition) are discussed with respect to threshold conditions and summation operations. Orig. art. has: 22 formulas, 5 figures.

SUB CODE: 09,12,06/ SUBM DATE: none/ ORIG REF: 003/ OTH REF: 002

Card 2/2 nst

GRANOVSKAYA, R.M.; GANZEN, V.A.

Role of a motor link in the visual system during the identification of an object by its outward contour. Vop. psikhol. 11 no.1:66-82 Ja-F '65. (MIRA 18:4)

1. Otdeleniye psikhologii Moskovskogo gosudarstvennogo universiteta i Vychislitel'nyy tsentr Leningradskogo gosudarstvennogo universiteta.

GRANOVSKAYA, R.M.; GANZEN, V.A.

Mechanisms of a passive inhibition of the neuron. Vest. LGU 20 no.3: 142-145 '65. (MIRA 18:2)

L 61640-65 EWT(d)/EED-2/EWP(1) Pq-4/Pg-4/Pk-4 LJP(c) HB/GG/GS/JXT(BF)
ACCESSION NR: AT5014726 UR/0000/65/000/000/0179/0186

AUTHOR: Granovskaya, R. M., Ganzen, V. A. 27 B+1

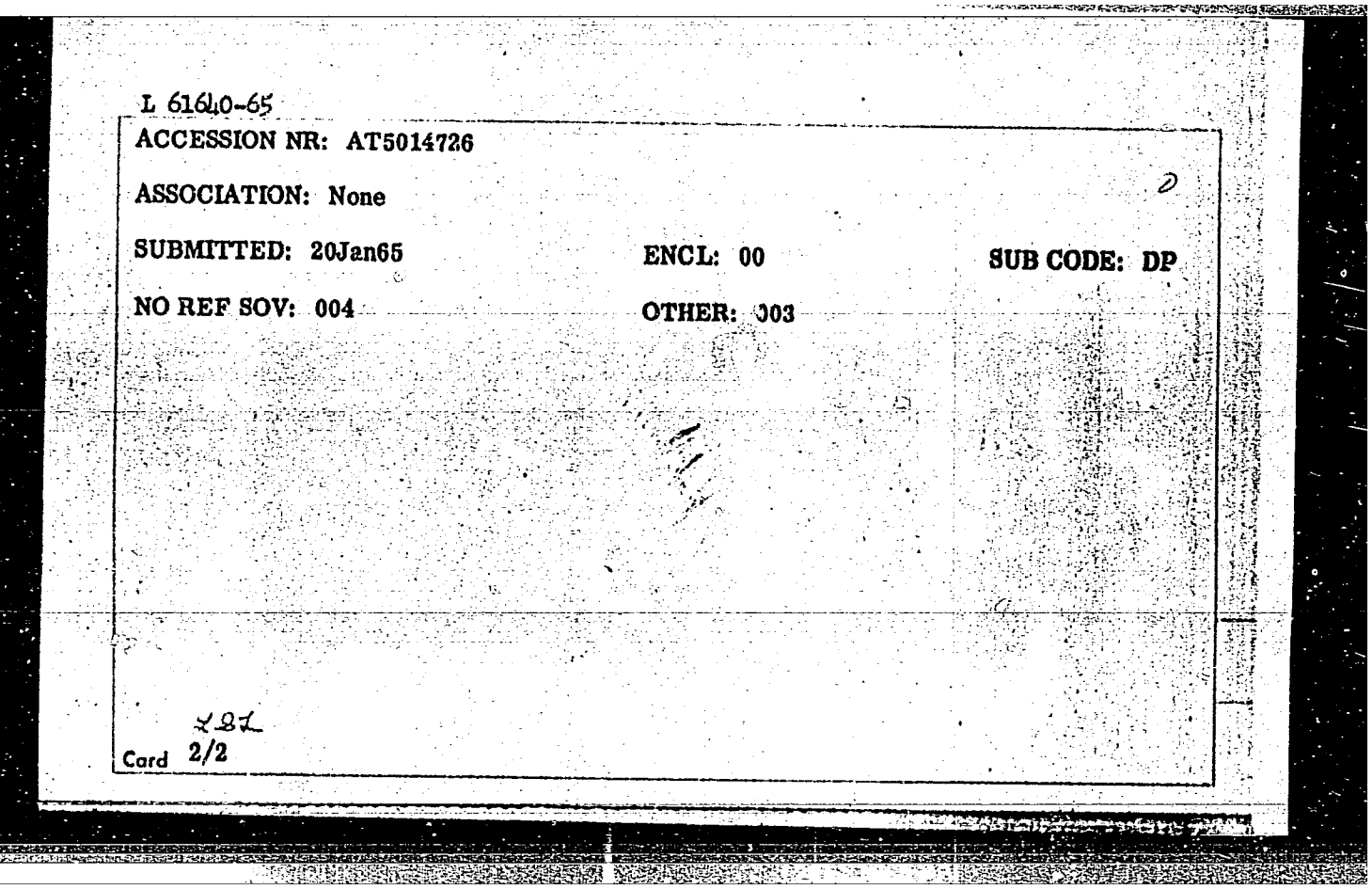
TITLE: One of the possible network models possessing an associative memory 16

SOURCE: Operativnyye i postoyannyye zapominayushchiye ustroystva (Rapid and nonvolatile storage); sbornik statey. Leningrad, Izd-vo Energiya, 1965, 179-186

TOPIC TAGS: associative memory model, network model memory, plastic neuron network memory, addressless memory model

ABSTRACT: Although the principles of associative memories have long been known to psychologists (see, e.g., Yu. L. Samarin, Ocherki psikhologii uma, Ed. APN, 1962), the mechanisms on which such memories are based are still obscure. The present paper investigates a network consisting of plastic neurons which possess numerous properties of an associative memory. It is assumed that a system possesses an addressless memory if it accepts, at the input, codes without an address group and if their localization within the memory is determined by the temporal structure of the code only. The author investigates associations by (time) adjacency and similarity, general schemes of associative networks, and the network operations during the recording of words, reading of words, time associations created between words in two alphabets, and the time associations between words of the same alphabet. Orig. art. has: 10 formulas and 3 figures.

Card 1/2



L 61640-65

ACCESSION NR: AT5014726

ASSOCIATION: None

SUBMITTED: 20Jan65 ENCL: 00 SUB CODE: DP

NO REF SOV: 004 OTHER: 003

Card 2/2

L 04398-67 EWT(d)/EWP(l) IJP(c) GG/BB/JXT(BP)/GD
ACC NR: AT6022678 SOURCE CODE: UR/0000/66/000/000/0102/0107

AUTHOR: Ganzen, V. A.; Granovskaya, R. M.

53
B+1

ORG: none

16

TITLE: A self-instructing system for the recognition of a certain class of visual patterns

SOURCE: Moscow. Institut avtomatiki i telemekhaniki. Samoobuchayushchiyesya avtomaticheskiye sistemy (Self-instructing automatic systems). Moscow, Izd-vo Nauka, 1966, 102-107

TOPIC TAGS: pattern recognition, character recognition, self organizing system, optic scanning, reading machine

ABSTRACT: A self-instructing system which recognizes objects on the basis of their external configuration is described. The system is based on certain information regarding the structure and functions of biological analyzer systems. The role of the external configuration of objects in the recognition process is analyzed and is shown to involve an adaptation process as one of the physiological mechanisms essential to the execution of this operation by the human organism. In the system considered, fundamentally a letter-recognition servosystem, the primary attributes playing an secondary role in those cases, for example, in which figures consisting of un-

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L 04328-67

ACC NR: AT6022678

joined segments are to be distinguished (such as the Cyrillic letters yery bl, yo ë, and i kratkoye ŭ). A block-diagram of such a system is analyzed and its operation is explained. The basic principle employed is one of servo scanning tied to a system of natural coordinates. A brief description is given of the machine code and the technique of initial teaching. Examples of the recognition of objects of certain sets (printed letters of the Latin and Russian alphabets, digits, and geometric figures) are presented, and on this basis the properties of the system are illustrated. It is shown that through the use of certain physiological data a system can be developed capable of performing a part of the recognition functions of man. Orig. art. has: 2 tables and 3 figures.

SUB CODE: 06,09/ SUBM DATE: 02Mar66/ ORIG REF: 007

Card 2/2

GANGERT, K.

TECHNOLOGY

Periodical: REVISTA MINELOR. Vol. 8, no. 12, Dec. 1957.

GANGERT, K.; IONESCU, M.; MAIER, O. Contributions to the reduction of explosion danger in the coal mines in Valea Jiului. p. 567.

Monthly List of East European Accession (MEAI) LC, Vol. 8, no. 3
March 1959 Unclass.

YEREMKOVA, Ye.M.; GANZEYEV, A.A.

Rare-earth elements in the accessory minerals of the Vishnevyye Mountains. Geokhimiia no.12:1267-1279 D '64.

(MIRA 18:8)

1. Institut mineralogii, geokhimii i kristallokhimii redkikh elementov, Moskva.

GANZHA, A. N.

USSR/Engineering - Construction Methods May 52

"Vacuum Treatment of the Concrete Surfaces of an Overflow Weir During Construction of the Tsimlyanskaya Hydroelectric Center," A. N. Ganzha, S. B. Pikulik, S. G. Skvortsov, Engineers, Stalin Prize Laureates

"Gidrotekh Stroit" No 5, pp 4-6

Describes equipment and proce[illegible]s used for vacuumizing various portions of weir under construction. Portable vacuum shields were used for horizontal surface. Vacuum-chambers were incorporated into concrete forms for vertical and inclined surfaces

230T10

more than 25°. Vacuum treatment accelerated setting of concrete, increasing rate of construction works. Vacuum concrete had dense and smooth surface, and acquired better physicomech properties.

230T10

GANZHA, G., inzh.; FOMICHEV, A., agronom

New reapers for harvesting grain in separate stages. Tekh. v sel'khoz. 20 no.7:73-75 Jl '60. (MIRA 13:9)
(Grain--Harvesting)

GANZHA, I. D.

Cand Vet Sci - (diss) "Rennet secretion in the normal condition, in connection with anatomy and tympanium of the rumen of calves of 6-8 months' age." Kiev, 1961. 23 pp; (Ministry of Agriculture Ukrainian SSR, Ukrainian Academy of Agricultural Sciences); 200 copies; price not given; (KL, 6-61 sup, 234)

GANZHA, Ivan Fomich [Hansha, I.Kh.]; KOVAL', M.V., red.; BUNIY, R.O., tekhn.red.

[First collective farms in the Ukraine, 1917-1920] Pershi kolektyvni hospodarstva na Ukraini, 1917-1920 rr. Kyiv, Vyd-vo Akad.nauk URSR, 1960. 154 p. (MIRA 13:9)
(Ukraine--Agriculture, Cooperative)

GANZHA, I.S.

Moisture adjustment in measuring precipitation. Trudy KazNIGMI no.22:141-145 '65.

(MIRA 18:11)

GANZHA, K.
25612

Kak Proverit' Podgotovku Proizvodstva I Kachestvo Promyshlennykh Izdeliy. (Primenitel' No K Mashinostroeniyu). Vestnik Gos. Kontrolya, 1948, No. 5, S. 30-37.

SO: LETOPIS NO. 30, 1948

GRITSAK, M. T.

GRITSAK, M. T.- "Use of Snake Trees in the Protective Forest Thinning of the Steppe Zone of the Ukraine SSR." Ukraine Order of Lenin Red Banner Agricultural Acad. Kiev, 1955 (Dissertations for Degree of Candidate of Agricultural Sciences)

So: Knizhnaya Letopis' No. 26, June 1955, Moscow

L 23289-66 EWT(m)/ETC(f)/EWG(m) DS/RM

ACC NR: AP6006983 SOURCE CODE: UR/0190/66/008/002/0297/0301

AUTHORS: Kolesnikov, G. S.; Tevlina, A. S.; Alovitdinov, A. B.; Ganzha, L. A.

ORG: Moscow Institute of Chemical Technology im. D. I. Mendeleyev (Moskovskiy khimiko-tekhnologicheskiy institut)

25 B

TITLE: Synthesis of homogeneous ion exchange membranes by grafting α-phenyl- vinyl phosphinic acid to water-insoluble films of polyvinyl alcohol (60th report in the series "Aliphatic polymers and copolymers")

SOURCE: Vysokomolekulyarnyye soyedineniya, v. 8, no. 2, 1966, 297-301

TOPIC TAGS: graft copolymer, ion exchange membrane, polyvinyl alcohol

ABSTRACT: Graft copolymerization of α-phenylvinyl phosphinic acid (I) to cross-linked water-insoluble films of polyvinyl alcohol (II) was investigated in the hope of producing ion exchange membranes with a uniform distribution of ionogenic groups. Copolymerization was performed with a variety of redox systems: 1) Ce^{4+} - II, 2) potassium persulfate - II, 3) potassium persulfate-potassium thiosulfate. Initiation takes place by formation of a macroradical which acts as a reducing agent. System (2) and II cross-linked thermally in the presence of I gave the best results. Static exchange capacity (SEC) of the graft copolymers as a function of the content of P is illustrated in Figs. 1a and b. The cation exchange membranes thus produced possess satisfactory physical, mechanical, and electrochemical properties.

UDC: 541.64+678.744+678.86

Card 1/2

L 23289-66

ACC NR: AP6006983

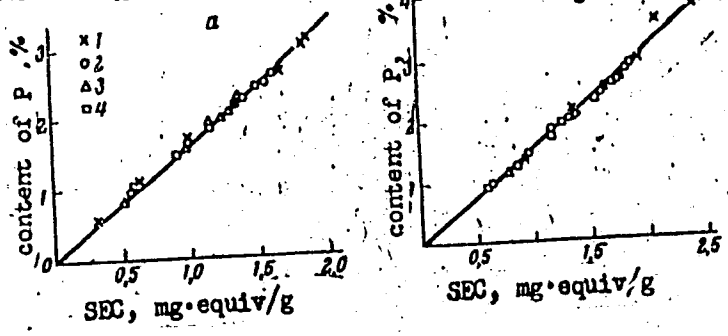

Fig. 1. SEC of graft copolymers as functions of P content: a - reaction conducted in aqueous medium, b - reaction conducted in aqueous-methanolic medium (1:1). Films cross-linked; 1 - thermally in the presence of I, 2 - with epichlorohydrin, 3 - thermally, 4 - with formaldehyde.

Orig. art. has: 3 tables and 2 figures.

SUB CODE: 07/ SUBM DATE: 19Mar65/ ORIG REF: 004/ OTH REF: 004

Card 2/2

GANZHA, M.T.

BODROV, V.A., professor; GANZHA, M.T.

Work practices in spot cultivation of oak in the south of the Ukrainian S.S.R. Zemledelie 4 no.5:78-82 My '56. (MLRA 9:8)

1. Kafedra lesnoy melioratsii USKhA.
(Ukraine--Oak)

RASKIN, G.F., kand. sel'khoz. nauk; VAYNER, M.G., kand. sel'khoz. nauk; YEREMEYEV, K.I., kand. ekon. nauk; AL'FER'YEV, V.F., kand. ekon. nauk; GOLENKO, M.V., mlad. nauchn. sotr.; GANZHA, N.M., mlad. nauchn. sotr.; FREYDMAN, S.N., red.; MAKHOVA, N.N., tekhn. red.; TRUKHINA, O.N., tekhn. red.

[Efficiency of capital investments in agriculture] Effektivnost' kapital'nykh vlozhenii v sel'skoe khoziaistvo. Moskva, Sel'khozizdat, 1963. 294 p. (MIRA 17:1)

1. Moscow. Vsesoyuznyy nauchno-issledovatel'skiy institut ekonomiki sel'skogo khozyaystva. 2. Nauchnyye sotrudniki Vsesoyuznogo nauchno-issledovatel'skogo instituta ekonomiki sel'skogo khozyaystva (for Raskin, Vayner, Yeremeyev, Al'fer'yev, Golenko, Ganzha).
(Agriculture--Finance)

LAMZHA, O. M.

"Variation of Exchange of Certain Macroergic Substances (ATP, CrP, and Glycogen) in the Organism in Experimental Thyreotoxicosis and Hypothyreosis." Cand Med Sci, Kiev Order of Labor Red Banner Medical Inst imeni Academician A. A. Bogomolets, 19 Sep 54. (RU, 4 Sep 54)

SO: Sum 432, 29 Mar 55

GANZHA, O.N. (Kiyev)

Some remarks on A.S.Voronov's monograph "Hospital therapy". (MIRA 16:9)
Vrach. delo no.8:151-156 Ag'63.
(HOSPITAL CARE)
(VORONOV, A.S.)

GANZHA, P.F.

COUNTRY : USSR V
CATEGORY : Pharmacology and Toxicology. Cholinergic Agents

ABS. JOUR. : RZhBiol., No. 5 1959, No. 23125

AUTHOR : Ganzha, P. F.
INST. :
TITLE : Pharmacology of Trichloroacetylcholine

ORIG. PUB. : Farmakol. i toksikologiya, 1957, 20, No 4, 32-35

ABSTRACT : Experiments were carried out on white mice, rabbits, cats and dogs. It was established that trichloroacetylcholine (T) has a marked hypotensive action associated with a moderate stimulation of respiration. The effect of T on the parasympathetic innervation, vegetative ganglia and secretion of salivary and gastric glands is similar to the action of acetylcholine (A), but is less intensive. T is less toxic than A and carbocholine. In a homologous series of the

Card: 1/3

Chair of Pharmacology & Pharmacy
Mil Med Ol. Acad. im S. M. Kirov

COUNTRY V
CATEGORY :

ABS. JOUR. : RZhBiol., No. 5 1959, No. 23125

AUTHOR :
INST. :
TITLE :

ORIG. PUB. :

ABSTRACT : derivatives of choline an interdependence between
cont'd the pharmacological action of compounds and their*
structure has been noted, viz.: a) the substitution of trichloroacetic acid for acetic acid in the molecule of A leads to the weakening of parasympathomimetic properties and strengthening of the influence on the vasomotor centers; b) the substitution of a benzoyl group for the acetyl

*chemical

Card: 2/3

STREL'TSOV, Ye.V., inzh.; GANZHA, P.N., inzh.

Making 282 meters of haulage roadways monthly. Ugol' Ukr. 4 no. 11:30 N '60. (MIRA 13:12)
(Donets Basin--Coal mines and mining--Labor productivity)

STRELʹTSOV, Ye.V., inzh.; GANZHA, P.N., inzh.

Mining 282 m of haulage drift in one month. Shakht. stroi. 4 no.12: 22-23 D '60. (MIRA 13:12)

1. Trest Krasnoarmeyskshakhtostroy.
(Hydraulic mining)

GANZHA, R.V.

Using tubers for grafting dahlias. Est. v shkole no.6:69 N-D '56. (MLRA 9:12)

1. Poltavskiy pedagogicheskiy institut.
(Grafting) (Dahlias)

GANZHA, R.V. (Poltava).

Biology of the development of Tricholoma flavovirens (Pers. ex Fr.) Lund. Bot. zhur. 43 no.4:580-581 Ap '58. (MIRA 11:6)
(Poltava Province--Mushrooms)

GANZHA, R.V.

Hymenomycetous fungi and the resources of edible mushrooms in forests of Poltava Province. [redacted] shur. 44 no.2:193-197 F '59. (MIRA 12:6)

1.Poltavskiy pedagogicheskiy institut.
(Poltava Province--Mushrooms)

GANZHA, R.V. (Poltava)

Mushrooms in alder woods of the Vorskla Valley, Poltava Province.
Bot.zhur. 45 no.2:283-287 F '60. (MIRA 13:6)
(Vorskla Valley--Mushrooms)
(Alder)

GANZHA, R. V. (Poltava)

Mushrooms in oak forests of the Vorskla Valley. Bot. zhur. 45 no.5:758-764 My '60. (MIRA 13:7)
(Vorskla Valley--Mushrooms)

GANZHA, R.V. [Hanzha, R.V.]

Material on the ecology and species of pileate fungi of the Vorskla River flood lands in the Poltava area. Ukr.bot.zhur. 17 no.2:102-106 '60. (MIRA 13:11)

1. Poltavskiy pedagogicheskiy institut, kafedra botaniki.
(Vorskla Valley—Hymenomycetes)

GANZHA, R.V. [Hanzha, R.V.]

Mushrooms of the order Agaricales mixed pine-deciduous forests of the trans-Vorskla region. Ukr. bot. zhur. 17 no.5:72-84 '60.
(MIRA 13:12)

(Vorskla Valley--Mushrooms)

DIKAREVICH, T.V.; GANZHA, T.I.; BAYMURATOV, U.

Utilizing waste products in Kazakhstan nonferrous metallurgy. Izv.AN Kazakh.SSR.Ser.ekon., filos.i prava no.2:42-51 '59. (MIRA 13:4)

(Kazakhstan--Nonferrous metallurgy)
(Waste products)

MIKHALCHENKOV, M.; GANZHA, V.; BUKREYEV, P.

Republic State Institute for the Planning of Agricultural Construction works for rural builders. Sel'. stroi. 15 no. 3:27-28 Mr '61. (MIRA 14:5)

1. Direktor instituta "Rosgiprosel'khozstroy" (for Mikhalchenkov).
2. Glavnyy inzh. instituta "Rosgiprosel'khozstroy" (for Ganzha).
3. Nachal'nik tekhnicheskogo otdela instituta "Rosgiprosel'khozstroy" (for Bukreyev).
(Construction industry)

(BR

ACCESSION NR: AP4036534 S/0089/64/016/005/0456/0457

AUTHORS: Ganzha, V.D.; Konoplev, K.A.; Trenin, V.D.; Sharov, V.T.

TITLE: Ion exchange installation for preparing reactor feed water

SOURCE: Atomnaya energiya, v. 16, no. 5, 1964, 456-457

TOPIC TAGS: ion exchange water desalting, reactor water desalting, water desalting, reactor feed water, water cooled reactor, moderated reactor

ABSTRACT: The article describes an ion exchange water desalting installation to provide water feed for water cooled and moderated reactors. The installation has been designed at the Physical-Technical Institute im. A.F. Ioffe, An SSSR as a substitute for an unsatisfactory electric distillation plant at the VVR-M reactor, which has low capacity, rapid scale forming, and low electrical resistivity of final product). The described installation produces 3 m^3/hr feed water with 1 mg/l. salt, and less than 0.02 mg/l chloride ions. The water supply is adequate for a regeneration cycle of 50 m^3. Artesian water is used as feed for desalting (400 mg/l. salts, mostly Ca and Mg). Cation exchange resin KU-2 and anion exchange

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ACCESSION NR: AP4036534

resin EDE-10P were used with 250 l. swollen resin loaded into each filter. Two airlift containers with H_2SO_4 and NaOH provided for regeneration. A diagram of the installation shows 4 filters, 2 regeneration containers and subsidiary equipment. Water control is achieved by continuous measurement of specific electric resistivity and intermittent chemical analyses. The installation has been in operation since 1961. "The authors acknowledge B.P. Konstantinov's suggestion to switch over to ion exchange desalting, D.M. Kaminker's help in the operation; P.P. Kory*stin's and I.V. Volf's help (All-union Scientific Research Inst. of Hydrotechnical and Sanitary Engineering) in laboratory tests and project recommendations." Orig. art. has: 1 figure and 1 table.

ASSOCIATION: None

SUBMITTED: 08Aug63 ENCL: 00

SUB CODE: NP,GC NR REF SOV: 000 OTHER: 000

Card 2/2

GANZHA, V.D.; YEGOROV, A.I.; KAMINKER, D.M.; KOLYADIN, A.B.; KONOPLEV, K.A.; SAYKOV, Yu.P.; SHAROV, V.T.

Electrophoretic filter for purifying reactor water. Atom. energ. 19 no.4:350-354 O '65. (MIRA 18:11)

L 25966-66 EWT(m)/ETC(f)/EPF(n)-2/EWG(m) IJP(c) WW

ACC NR: AP5026440 SOURCE CODE: UR/0089/65/019/004/0350/0354

AUTHOR: Ganzha, V. D.; Yegorov, A. I.; Kaminker, D. M.; Kolyadin, A. B. Konoplev, K. A.; Saykov, Yu. P.; Sharov, V. T.

ORG: none

TITLE: Electrophoretic filter for reactor water purification

SOURCE: Atomnaya energiya, v. 19, no. 4, 1965, 350-354

TOPIC TAGS: nuclear research reactor, nuclear reactor ~~operation~~, water purification equipment, water cooled nuclear reactor, industrial filter, electrophoresis, corrosion, stainless steel / VVR-M nuclear reactor, 1Kh18N9T stainless steel

ABSTRACT: In January, 1962, a formation of turbidity in the primary loop of the VVR-M reactor of the Physicotechnical Institute im. A. F. Ioffe, AN SSSR, was observed. In June, the turbidity was so strong that a special electrophoretic filter for water purification was installed. The turbid water contained a 54-pct suspension of hydrate aluminum oxide which was originated by the corrosion of aluminum reactor vessel and fuel-element cans. A daily amount of about 2 g/Mw of suspended particles was discharged into the water. The installed filter was equipped with the platinized titanium anode-plates, while the cathode

UDC: 621.039.568

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plates were made of 1 18 9T stainless steel. A cylindrical prototype of the filter was experimentally tested and the results were explained and graphically illustrated. The tests showed that the chemical composition of turbid and filtered water was as follows:

	Turbid	Filtered
Al_2O_3 in m/kg	3.0	0
Fe^{+3} " "	0.4	0.18
SiO_2 " "	6.0	1.3
O_2 " "	0.96	2.96
Optical density	0.065	0.008

The selected filter design data are summarized in the following table:

Water flow rate in kg/hr	250-500
Effective water flow in cu m/hr	0.5
Electrode voltage in v	110-220
Distance between electrodes in cm	1
Contact time in min. (at 250 l/hr)	2
Total filter volume in liter	10.7
Interelectrode volume in liter	7.5
Electrode size in mm	170x572
Number of anode plates	4
Number of cathode plates	5
Filter dimensions in mm	400x224x935

ACC NR: AP5026440

The filter has a small hydraulic resistance and needs only about 0.5 kw for its operation. A flow diagram represents schematically the circulation of water in the primary loop of the reactor. Another figure shows a photo of the electrophoretic filter which was successfully used for purifying water in the VVR-M reactor. The authors express their gratitude to Academician B. P. Konstantinoff for his continuous interest. Expressions of thanks are also given to V. P. Rodzevich (for apparatus design), V. D. Trenin and R. N. Rodionov (for analysis) and to D. A. Yashin and B. S. Razov for their assistance. Orig. art. has: 2 tables and 6 figures.

SUB CODE: 18,13 / SUBM DATE: 4July64 / ORIG REF:001 / OTH REF:002

Card 3/3 FW

GANELA, V. F.

GANELA

The [illegible] electric trammer. Stroi. i dor. mashinostr. 2 no. 9:31-32 [illegible]. (MLRA 1:9)

(Road machinery)

GANZHA, V.S.; DVORETSKIY, I.T.; LEONT'YEV, S.I.

[Construction and assembly of semi-automatic production lines] Stroitel'stvo i montazh poluavtomaticheskikh linii. Moskva, TSentr. nauchno-issl. in-t informatsii i tekhniko-ekon. issledovanii po lesnoi, tsellyulozno-bumazhnoi, derevoobrabatyvaiushchei promyshl. i lesnomu khoz., 1964. 34 p. (MIRA 18:7)

GANZHA, V.V., inzh.

Let's mount bulldozer equipment on the MKTS-2 foundation-hole digger. Transp. stroi. 10 no. 12:57 D '60. (MIRA 13:12)
(Excavating machinery)

SHABALIN, A.A.; GANZHA, V.Ya., inzh.; NIKOL'SKIY, V.A.[deceased]; LAPINSKIY, L.G., inzh.; IVANKOV, A.G.; SKOL'YAKOV, R.T.; TURYANSKIY, G.M.; SHMIDT, N.E.; GREBTSOV, P.P., red.; MAKHOVA, N.N., tekhn. red.; BALLOD, A.I., tekhn. red.

[Handbook for the state farm construction worker]Spravochnik sovkhoznogo stroitelia. Moskva, Sel'khozizdat, 1962. 598 p. (MIRA 15:9)
(State farms) (Construction industry)

GANZHAAGIYN, Zh. Cand Med Sci -- (diss) " The effect of chemical therapeutic substances as shown in experiments on the dysentry bacteria Newcastle." Mos,1957. 12 pp. (Acad Med Sci USSR) 200 copies. (KL, 8-58, 108)

PIVEN' V.D., kand. tekhn. nauk,; GANZHERLI, E.I., inzh.; BOGDANOV, V.K., inzh.

Automation of unit-plan installations. Energomashinostroenie 4 no. 6:1-7 Je '58. (MIRA 11:8)
(Automatic control)
(Steam power plants)

GANZHERLI, E.I., inzh.; KVASHA, N.V., inzh.

Programmed temperature regulator. Energomashinostroenie 8 no.5:41-42 My '62. (MIRA 15:5)
(Temperature regulators)
(Programming (Electronic computers))

PIVEN', V.D., doktor tekhn.nauk; BOGDANOV, V.K., kand.tekhn.nauk;
GANZHERLI, E.I., inzh.

Automatic control network of a 150 Mw. boiler-turbine block and its experimental investigation. Energomashinostroenie 9 no.8: 1-4 Ag '63. (MIRA 16:8)
(Automatic control) (Boilers) (Steam turbines)

PIVEN', Viktor Danilovich, doktor tekhn. nauk, prof.; BOGDANOV, Valentin Kirillovich; GANZHERLI, Emmanuil Il'ich; ZAMANSKIY, Abram Markovich; TROSHCHENKOV, I.I., retsenzent; CHERKASOV, K.I., red.

[Automation of power generating systems] Avtomatizatsiia energeticheskikh blokov. Pod obshchei red. V.D.Piven'. Moskva, Energiia, 1965. 351 p. (MIRA 19:1)

SUBBOTIN, K.D.; GANZEYEVA, L.V.

Bertrandite-bearing granites and greisens in Kazakhstan. Sov. geol. 8 no.3:113-115 '65. (MIRA 18:5)

1. Institut mineralogii, geokhimii i kristallokhimii redkikh elementov AN SSSR.

GANZHIN, A.

GANZHIN, A.--"Theoretical and Experimental Investigation of the Magnetic Field of a Broken Thoroid." Moscow Order of Lenin State U imeni M. V. Lomonosov. Moscow, 1955. (Dissertation for the Degree of Candidate of Physicomathematical Sciences).

SO: Knizhnaya Letopis' No. 27, 2 July 1955

KOPEL'YAN, I.B., inzh.; GANZHIN, A.A., inzh.

Using precast reinforced concrete in building the Vasilevichi State-Owned Regional Electric Power Plant. Energ.stroi. no.4:15-21 '59. (MIRA 13:8)

1. Vasilevichskaya gosudarstvennaya rayonnaya elektricheskaya stantsiya.
(Precast concrete construction)
(Vasilevichi--Electric power plants)

SOV/120-59-4-2/50

AUTHOR: Gan'zhin, M. A. (Deceased)

TITLE: On One Method of Extraction of Protons from a Synchrophasotron

PERIODICAL: Pribory i tekhnika eksperimenta, 1959, Nr 4, pp 22-24 (USSR)

ABSTRACT: The method is based on the use of an absorber and a deflecting magnet (Refs 1 and 2). In order to improve the parameters of the extracted beam a nonuniform field magnet is used. The principle of the method (which is most effective for the Gev region) consists of the following. The accelerated protons are incident on an internal or external target which is able to ensure an energy loss of a few tens of Mev. As a result, the particles enter the gap of a deflecting magnet which is placed on the inner edge of the working region of the chamber in one of the straight intervals. In the magnet the particles are deflected through an angle sufficient to ensure that during one quarter of a revolution they leave the accelerator magnet through the next straight

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On One Method of Extraction of Protons from a Synchrophasotron

interval. An analysis of the motion of the particles between the target and the magnet and between the magnet and the interval through which the particles are extracted is given with the view of determining optimum conditions for extraction. Equations are derived (Eqs (21) and (22)) which may be used to determine the optimum position of the target and the field gradient in the deflecting magnet. It is suggested that the beam parameters in the vertical plane may be considerably improved by specially shaping the field at the outer edge of the vacuum chamber. If a rapid fall in the field is introduced near the outer wall of the chamber, strong refocussing of the beam in the vertical plane is obtained and calculations show that about 50% of particles experiencing normal collisions with the target may be extracted by this method in the form of a well-focussed beam. The basic idea of the method was originally suggested by Piccioni and Clark (Ref 1) and Wright (Ref 2). Acknowledgment is

On One Method of Extraction of Protons from a Synchrophasotron

made to L. L. Sabsovich for advice and discussions of the results. There is 1 figure and 6 references, of which 2 are Soviet and 4 English.

ASSOCIATION: Ob"yedinennyy institut yadernykh issledovaniy (Joint Institute for Nuclear Studies)

SUBMITTED: July 16, 1958.

Card 3/3

ANDROSOV, M.; GAN'ZHIN, V., inzh.

State bins will receive 165 poods of Orenburg grain. Muk.-elev. prom. 26 no. 11:4-6 N '60. (MIRA 13:11)

1. Nachal'nik Orenburgskogo upravleniya khleboproduktov (for Androsov). 2. Nachal'nik proizvodstvenno-tekhnicheskogo otdela Orenburgskogo upravleniya khleboproduktov (for Gan'zhin). (Orenburg Province--Grain)

GAN'ZHIN, V.; FILIPPOVICH, B.; ANDREYEV, G.

Problems in the management and organization of work at grain receiving enterprises. Muk.-elev. prom. 28 no.8:20-22 Ag '62. (MIRA 17:2)

1. Nachal'nik proizvodstvenno-tekhnicheskogo otdela Orenburgskogo upravleniya khleboproduktov (for Gan'zhin). 2. Glavnyy agronom Petropavlovskogo elevatora (for Filippovich). 3. Zamestitel' direktora po kachestvu Tankerisskogo khlebopriyemnogo punkta TSelinogradskoy oblasti (for Andreyev).

GANZHULEVICH, T. F.

Ganzhulevich, T. F. "Experimental echinococciasis of the lungs", Sbornik rabot po gel'mintologii (Vsesoyuz. in-t gel'mintologii im; akad. Skryabina), Moscow, 1948, p. 87-90.

SO: U-3042, 11 March 53, (Letopis 'zhurnal 'nykh Statey, No. 10,1949).

GANZHULEVICH, T.F., professor.

Embryonic hernias of the ectopic anterior abdominal wall.
Vest.khir.76 no.8:118-121 S '55. (MLRA 8:11)

1. Iz kliniki detskoy khirurgii (zav.--prof. T.F.Ganshulevich) Ivanovskogo meditsinskogo instituta Ivanovo, ul. Kalinina, d. 17, kv.77
(HERNIA,
congen.,of heart & colon forming two-bag hernia, surg.)

GANZHULEVICH, T.F., prof. (Ivanovo (obl.) ul. Kalinina, d.17, kv.77)

Experience with open reduction of contenital hip dislocation. Ortop.,travm.i protez. 22 no.3:27-31 '61. (MIRA 14:4)

1. Iz kliniki khirurgii detskogo vozrasta (zav. - prof. T.F. Ganzhulevich) Ivanovskogo meditsinskogo instituta (dir. - dots. Ya.M. Romanov).
(HIP JOINT—DISLOCATION)

GANZHULEVICH, T.F., prof.

Intestinal invagination in children. Ster. nauch. trud. Ivan. gos. med. inst. no.25:64-69 '62. (MIRA 17:5)

1. Iz kafedry detskoy khirurgii (zav. - prof. T.F. Ganzhulevich) Ivanovskogo gosudarstvennogo meditsinskogo instituta (rektor - dotsent Ya.M. Romanov).

GANZHULEVICH, T.F., prof.

Open fixation of congenital dislocation of the hip joint. Sbor. nauch. trud. Ivan. gos. med. inst. no. 28:127-133 '63. (MIRA 19:1)

1. Iz kafedry detskoy khirurgii (zav. - prof. T.F. Ganzhulevich) Ivanovskogo gosudarstvennogo meditsinskogo instituta (rektor - dotsent Ya.M. Romanov).

1. GANZING, K.

2. USSR (600)

4. Vladivostok - Moving-Picture Theaters

7. Summer moving-picture theater with daylight projection in Vladivostok. Kinomekhanik no.9, 1952.

9. Monthly List of Russian Accessions, Library of Congress, January 1953. Unclassified.

L 33930-65 EPA(w)-2/EWA(c)/EWT(1)/EWT(m)/EEC(t)/EWP(b)/T/EWP(t) Pi-4/Pab-10
JD

ACCESSION NR: AT4049959 Z/2511/61/000/001/0103/0109

AUTHOR: Hanzlik, J. (Ganzlik, I.) (Doctor) (Prague)

TITLE: The behavior of CdS(Cu) type photoconductors during heat treatment

SOURCE: Prague. Ceske vysoke uceni technicke. Prace. Ser. 6, no. 1, pt. 2, 1961, 103-109

TOPIC TAGS: photoconductor, photoconductivity, copper sulfide, surface layer, zinc sulfide, heat treatment, recrystallization, cadmium sulfide, doping

ABSTRACT: The article discusses and explains certain processes occurring in CdS(Cu) and ZnS(Cu) during heat treatment, in particular in CdS(Cu), and gives the results of the investigation of the preparation of photoconductors made of cadmium sulfide doped with copper. Recrystallization processes taking place in CdS(Cu) during heat treatment were also studied. The results attest the existence of a separate surface layer enriched with the doping element (Cu), which appears on the grains of the photoconductor CdS(Cu) which has been treated in the temperature interval 420 to 650°C. The author succeeded in separating this layer from the surface of the the grains and in partially isolating it. Analogy with what is known about lumino-

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ACCESSION NR: AT4049959

phores of the ZnS(Cu) type indicates that the basic compound of this layer is the the copper sulfide Cu_2S. Differential thermal analysis, dilatation thermal analysis, and thermal conductivity analysis of the gases escaping during heat treatment were carried out and photomicrographs were made. Orig. art. has: 2 figures.

ASSOCIATION: VZ Premyslenl

SUBMITTED: 00 ENCL: 00 SUB CODE: EM,TD

NO REF SOV: 001 OTHER: 017

Card 2/2

GANZLIK, M.; MLEZIVA, I.

Alkyd resins modified with saturated synthetic fatty acids for hot dried coatings. Lakokras.mat. i ikh prim. no.2:15-21 '64. (MIRA 17:4)

GANZURKV, G.

Early diagnosis of osteoarticular tuberculosis in Sofia. Khirurgiia, Sofia 11 no.3:265-272 Mar 58.

1. Nauchnoizsledovatelski protivotuberkulozei institut--Sofiia. Direktor: T. Sharkov.
(TUBERCULOSIS, OSTEOARTICULAR, diag.
early (Bul))

PAVLOV, G.; GANZUREV, G.; DZHEROVA, N.; ZHELEVA, A.; NIKOLOVA, D.; KHITSOV, Kh.; VLASEV, K.; BOIADZHIEV, Zh.; OBREIKOV; NEDEV, B.; PACHNIKOV, I.

Statistical data on results of various therapeutic methods in joint tuberculosis of the extremities. Khirurgiia 15 no.2/3: 167-169 '62.

(TUBERCULOSIS OSTEOARTICULAR surg)

GANZYURA, P.

Study room of the method of industrial training.
Prof.-tekh. obr. 19 no.8:10-11 Ag '62. (MIRA 15:12)

1. Zaveduyushchiy kabinetom metodiki proizvodstvennogo obucheniya Karagandinskogo industrial'nogo tekhnikuma.
(Vocational education)

Gaodu, A. N.

AUTHORS: Ivanov, Ye. V., Gaodu, A. N., Marants, A. G. 131-2-1/10

TITLE: On the Problem of the Utilization of Caustic Dust for the Production of Sintered Magnesite Powders (K voprosu ispol'zovaniya kausticheskoy pyli dlya proizvodstva magnezitovykh spechennykh poroshkov).

PERIODICAL: Ogneupory, 1958, Nr 2, pp. 49-54 (USSR)

ABSTRACT: The investigations of VNIIO have shown, that it is possible to produce powders on the basis of caustic dust with the help of sedimentation. A group of researchers together with Ye. F. Bugayev of the "Magnesite" plant conducted experiments in the laboratory and in the plant for the purpose of silt preparation with a varying content of raw magnesite and of caustic dust. In order to investigate the properties of the dust, samples were taken from different cyclone seperator groups (see figure). The experimental results are given in tables 1 and 2. Magnesite slip from raw magnesium and caustic dust the chemical composition of which is given in table 3 were employed for the laboratory experiments. The properties and precipitation velocities of the slip prepared from 100 % caustic dust are given in table 4. Table 5 contains the slip properties of a mixture of raw magnesite and caustic dust

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On the Problem of the Utilization of Caustic Dust for the Production of Sintered Magnesite Powders 131-2-1/10

and table 6 the chemical composition of the raw magnesite and slip the caustic dust. The modification of the chemical composition of the slip with an addition of caustic dust can be seen from table 7. On the basis of the experiments conducted a pneumatic transport system was constructed for the supply of caustic dust to the mill bunkers. By means of further measures adopted it was possible to produce slip of 100 % caustic dust.
There are 1 figure and 7 tables.

ASSOCIATION: Institute of Refractory Materials, Khar'kov (Khar'kovskiy institut ogneuporov).
Institute of Refractory Materials, Leningrad (Leningradskiy institut ogneuporov).

AVAILABLE: Library of Congress

Card 2/2

GAODU, A.N.

AUTHORS: Ivanov, Ye. V., Gaodu, A. N., Dolgina, G. Z. 131-23-5-8/16
Vit', Ye. F.

TITLE: Testing Magnesite-Chromite and Periclase-Spinellide Bricks in the Converter With Bottom Blowing (Ispytaniye magnezitokhromitovogo i periklazoshpinelidnogo kirpicha v konvertere pri donnoy produvke)

PERIODICAL: Ogneupory, 1958, Vol. 23, Nr 5, pp. 224-229 (USSR)

ABSTRACT: The Yenakiyevo metallurgic works under participation of the Ukrainian Metal Institute as well as the Khar'kov Institute of Refractory Materials carried out experiments with the production of steel with low and average carbon content. This was done by means of blowing through the bottom of Martin cast iron with a vapor-oxygen mixture in a converter of 2800 mm diameter and contents of 12 t of cast iron. In the experiments the converter lining consisted of bricks from the plants im. Petrovskiy and "Magnezit". In both campaigns basic bottoms were applied. The physico-chemical properties of the refractory products are mentioned in table 1. The lining sections next to the bottom showed the highest wear. The operating characteristics of the converter in the experimental cam-

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paigns are illustrated in figures 1 and 2. In the investigation of the finished off refractory products also participated P. D. Pyatikop who carried out the petrographic investigations. In table 3 the physico-chemical properties and in table 4 the mineralogical composition of the finished refractory products are quoted. In figure 3 a brick of the converter after termination of the kiln campaign is shown. The refractory products wear as a result of the mechanical flushing away and the pitting of the working surface of the bricks as well as by chemical erosion at high temperatures. In table 5 chemical analyses of the slags are shown which permit to judge on the dynamic of the wear during fusion. Furthermore it is reported in detail on the wear of the lining in different sections. The periclase--spinellide bricks have shown the best results of all tested refractory bricks of the converter lining. There are 3 figures, 5 tables.

ASSOCIATION: Vsesoyuznyy nauchno-issledovatel'skiy institut ogneuporov(All--Union Scientific Research Institute for Refractory Materials) Yenakiyevskiy metallurgicheskiy zavod (Yenakiyevo Metallurgical Plant)

Card 2/2

1. Refractory materials - Production 2. Refractory materials - Test methods 3. Refractory materials - Test results

S/131/60/000/009/003/008/XX
B021/B052

AUTHOR: Gaodu, A. N.

TITLE: Use of Refractories in Converters for Ferroalloy Production

PERIODICAL: Ogneupory, 1960, No. 9, pp. 405 - 410

TEXT: O. V. Geyev collaborated in experiments with periclase spinellide bricks from the zavod "Magnezit" ("Magnezit" Works) conducted in the Aktyubinskiy ferrosplavnyy zavod (Aktyubinsk Works of Ferroalloys). Converter linings used for continuous working with a metal containing less than 0.8% of silicon showed the highest stability (Fig. 1). The chemical and mineralogical compositions of refractories after their use are given in a table showing three zones: one which changes only slightly an intermediate zone, and one which had been in contact with the melt. In the latter, secondary spinellide was formed by the interaction of periclase, chromium spinellide, and Fe_2O_3. Petrographic studies were conducted by P. D. Pyatikop. The silicon content of the initial metal is the most

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Use of Refractories in Converters for Ferroalloy Production

S/131/60/000/009/003/008/XX
B021/B052

decisive factor determining the stability of refractories in converters used for melting low-carbon ferrochromium. For obtaining a longer campaign of the converter, it is advisable to reinforce the lining of the tuyere zone (e.g. with molten magnesite) and to use periclase spinellide bricks for the rest. For reducing the consumption of refractories it is necessary to check the lining from time to time. There are 6 figures, 1 table, and 2 Soviet references.

ASSOCIATION: Ukrainskiy nauchno-issledovatel'skiy institut ogneuporov (Ukrainian Scientific Research Institute of Refractory Materials)

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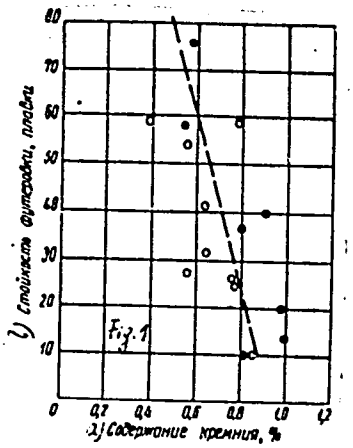
S/131/60/000/009/003/008/XX
B021/B052



Legend to Fig. 1: a) silicon content, %; b) stability of lining, number of melting processes.

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23485
S/131/61/000/005/001/001
B105/B220

15 2210 3009, 3309

AUTHORS: Ivanov, Ye. V., Gaodu, A. N. and Guzenko, G. F. (see Association)

TITLE: The melting of refractory materials in the electric furnace of the type ОКБ-514 (OKB-514) and the manufacture of products from these materials

PERIODICAL: Ogneupory, no. 5, 1961, 214 - 220

TEXT: In the experimental plant UNIIO (Ukrainian Scientific Research Institute of Refractory Materials), a monophase arc furnace of the type ОКБ-514 (OKB-514) was installed in order to obtain melted refractory materials. The furnace is controlled automatically and fed with current from a monophase step-up transformer of the type ЭПОМ-350 (EPOM-350). The primary voltage is 6000 v and may be adjusted to 15 different stages from 34 to 194 v. The furnace was adjusted for melting magnesite powder of the type МПМ3 (MPMZ). A. I. Alekhin, A. V. Ponedel'nikov and Yu. N. Kol'bus assisted in these experiments. Characteristics of the melting of magnesite powder: time of melting: 7 hours 13 minutes; consumption of magnesite powder per melting: 303 [illegible]; average charge of

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powder per hour: 43.7 kg; output of melted magnesite 47.7 %; consumption of power: 9.9 kwh; specific consumption of electrodes: 0.13 kg/kg; specific consumption of coke: 0.05 kg/kg; losses due to dust and burning off: 14.0 %. A block of melted magnesite was obtained in form of a lump 700 × 400 and up to 400 mm high, having a weight of 150 kg. On fracturing, the block showed a zonal structure. The petrographic studies were made by P. D. Pyatikop. The chemical composition of the magnesite block is indicated in % in Table 1. One of the experimental meltings concerned refractory mixtures of 70 % commercial alumina and 30 % magnesite powder (aluminous spinel). Table 2 shows the chemical composition of the block. The characteristics of the melted products cut out of the block are given in Table 3. Furthermore, commercial products were manufactured from powders of melted materials by the ceramic method (Table 4). The chemical and mineralogical composition of the products based on melted materials and manufactured by the ceramic method are evident from Table 5. Finally, it is stated that a voltage of 97 v and an average charge of 50 kg/hr may be considered as optimum conditions for the melting of magnesite in the electric furnace OKB-514.

The melting of refractory materials ...

Of the feeding methods tested, the continuous method is most economic. Products manufactured by the ceramic method from melted materials, amongst them from mixtures of melted and sintered powders, are of high density (porosity 13 - 19 %) and strenght. Deformation under a load of 2 kg/cm^2 begins at temperatures above 1.800°C. In the furnace OKB-514 and with periodically reduced feed, it is possible to obtain melted magnesite containing up to 98 % MgO when using a charge containing 90 % MgO. One part of the block (10 to 15 %) containing a high percentage of MgO may be eliminated during the distribution. Abstracter's note: The photographs of Figs. 1 and 2 are not reproducible . There are 2 figures and 5 tables.

ASSOCIATION: Ukrainskiy nauchno-issledovatel'skiy institut ogneuporov (Ukrainian Scientific Research Institute of Refractory Materials) [Abstracter's note: Name of association was taken from first page of journal.]

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TSYNKINA, V.M.; GAODU, A.N.; MARKEVICH, Ye.P.; KUKUSHKIN, A.P.

Testing of synthetic patching powders in the repair of open-hearth furnace bottoms. Sbor.nauch.trud. UNIIO no.5:202-209 '61. (MIRA 15:12)

(Open-hearth furnaces—Design and construction)
(Firebrick—Testing)

IVANOV, Ye. V.; GAODU, A.N.; GUZENKO, G.F.; Prinimali uchastiye: ALEKHIN, A.I.; PONEDEL'NIKOV, A.V.; KOL'BUS, Yu. N.

Smelting refractory materials in the OKB-514 electric furnace and manufacturing articles from them. Ogneupory 26 no.5:214-220 '61. (MIRA 14:6)

1. Ukrainskiy nauchno-issledovatel'skiy institut ogneuporov.
(Electric furnaces)
(Refractory materials)

EWP(q)/EWT(m)/BDS--AFFTC/ASD--WH
L 11222-63
ACCESSION NR: AP3000025 S/0131/63/000/005/0218/0223

AUTHOR: Kaynarskiy, I. S.; Gaodu, A. N. 54 53

TITLE: Light-weight refractory products of corundum 15

SOURCE: Ogneupory, no. 5, 1963, 218-223

TOPIC TAGS: refractories, corundum, bloating, gypsum, spinel, calcium, aluminate, magnesium, alumina

ABSTRACT: The authors found it possible to prepare effective light-weight refractory products from commercial unground and finely ground alumina without preliminary roasting. This is accomplished by bloating with gas, using the powdered alumina with hydrated calcium oxide in the presence of water. Gypsum is added to strengthen the bloated casting, and caustic magnesite is added to lower the roasting temperature and to increase the strength of the final product. The bulk weight and thermal conductivity of the product are low. Fire resistance is 1900C, and initial deformation does not occur till 1590C. The mineral phase in the refractory is chiefly corundum, with subordinate magnesian spinel and calcium aluminate. Orig. art. has: 6 tables and 4 figures.

Card 1/1 Ukrainian Sci. Research Inst. for Refractories

L 43126-65 EWP(e)/EPA(s)-2/EWT(m)/T WH

ACCESSION NR: AR5008434 S/0081/65/000/003/M007/M007

SOURCE: Ref. zh. Khimiya, Abs. 3M51

AUTHOR: Kaynarskiy, I.S.; Gaodu, A. N.

TITLE: A highly porous, insulating, corundum refractory

CITED SOURCE: Sb. nauchn. tr. Ukr. n.-i. in-t ogneuporov, vyp. 7(54), 1963, 96-109

TOPIC TAGS: corundum refractory, lightweight refractory, insulating refractory, refractory manufacture

TRANSLATION: The authors describe a process for a corundum insulating refractory manufactured from unroasted and unground technical aluminum oxide by expanding a slip containing gypsum and orthophosphoric acid (sp. gr. 1.747 g/cm^3). The product properties are: volumetric weight 0.85 g/cm^3, apparent porosity 77%, compressive strength 21 kg/cm^2, refractoriness $>$ 1900C, average heat capacity 0.20 cal/g degree at 20-1000C, growth after contraction 0.8% within 2 hrs. at 1600C. The material is used as a highly refractory heat-insulating material, as a

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L 43126-65

ACCESSION NR: AR5008434

0

filtering medium, as catalyst carrier, etc. G. Gerashchenko.

SUB CODE: MT ENCL: 00

Card 2/2 10

ACCESSION NR: AP4040465 S/0131/64/000/006/0270/0275

AUTHORS: Gaodu, A. N.; Kaynarskiy, I. S.

TITLE: Study of swelling kinetics in the alumina dross used in production of lightweight corundum refractories

SOURCE: Ogneupory*, no. 6, 1964, 270-275

TOPIC TAGS: refractory, corundum refractory, dross, dolomite, gypsum, alumina, coke powder, orthophosphoric acid, porosity regulation, viscosity, fluidity, hardening, dextrin, vinasse

ABSTRACT: Results of a study involving the kinetics of dross swelling under various conditions are presented. Procedures and instruments used were described previously by the authors (Ogneupory*, 1963, No. 5). Reactions between dolomite (in gypsum) and orthophosphoric acid were used for the porosity regulation in raw material consisting of aluminum oxides, gypsum, and small admixtures of powdered coke. It was found that pore sizes increased with the increase of gypsum and acid. This relation persisted after the introduction of powdered coke, which resulted in a weight decrease and the general increase of structural uniformity. Weight

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ACCESSION NR: AP4040465

decrease was also achieved with the use of surface-active substances (dextrin, sulfite-vinasse) which served to improve dross fluidity. The swelling process was found to be related to the amount of phosphoric acid, the carbonate (dolomite) composition, the amount of gypsum, water content and water temperature. These relations are expressed graphically in Figs. 1, 2, 3, 5, and 6 of the Enclosures. The variation in the apparent dross viscosity with temperature (in the process of swelling) is shown in Fig. 4 of the Enclosures. The variations in gas pressures within pores with respect to dross temperature and to moisture content are shown in Figs. 7 and 8 of the Enclosures. It was determined that the progress of dross swelling varied with many factors and physicochemical conditions, and was determined by several continuous processes. These processes could be regulated by adding substances which affect the setting time of gypsum. Dextrin may be used to slow down the setting of gypsum, while $CaSO_4 \cdot 2H_2O$ and H_2SO_4 serve as accelerators. The effect of these agents on the dross volume increase is illustrated in Fig. 9 of the Enclosures. Basic indexes of the light-weight refractories produced under optimal conditions were: Al_2O_3 content of 88-90%, thermal resistivity above 1900C, specific gravity of 0.82-0.90 g/cm^3, porosity of 72-79%, ultimate compressive strength of 26-45 kg/cm^2, thermal conductivity coefficient (in the temperature range 20-1400C) of 0.44 kcal/m·hour·degree. The product consisted of corundum with smaller amounts

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